An Interim Report on the Search for Mokele Mbembe

by Herman A. Regusters and Dr. Kia L. Vandusen

Editor's Note: We are pleased that Mr. Regusters has offered **PURSUIT** *his report of his TRACE-I search for mokele mbembe. The data presented here is only a summary of all the information he gathered. A list of animals sighted, details of geographic pecularities and comparison data such as voice graphics had to be reduced for lack of space.*

We hope to have a report on TRACE-II for our readers after that expedition is completed. An excellent report about the rigors of the TRACE-I effort is available (see reference note #1) and highly recommended.

In 1980, while working with the California Institute of Technology's Jet Propulsion Laboratory (JPL), I was given project responsibility for a program being conducted under the auspices of the Office of Naval Research (ONR). The effort entailed the adaptation of high-performance, precision-navigation equipment and the demonstration of its feasibilty for use aboard oceanographic research vessels. As a direct result of those activities, Dr. David Nevin at the same facility, and I, presented a concept for the integration of the Global Positioning Satellite (GPS) with the capabilities of the LANDSAT, to achieve an unparalleled degree of mapping resolution and precision. That same year, I happened to read an article in *Science 80* relating to reports of the possible existence of a dinosaur-like animal somewhere in Equatorial Africa. It was the first I had ever read of such a thing. The article named Dr. Roy Mackal at the University of Chicago as an interested investigator. After acquainting myself with the geophysical nature of that area, the idea that such a claim could contain a basis of truth seemed reasonable for the Congo Basin constituted a vast, uninhabitable, uncharted region along Africa's equator. It was not just the thought of an unknown animal that caught my fancy. The idea of utilizing the latest satellite technology to help make a penetration of the region would be my major interest — finding the beast would be a bonus.

After contacting Dr. Mackal, I found he had neither a specific plan of action nor knowledge of existing earth-sensing and geophysical-data-compilation technology, so I flew to visit him at the University of Chicago. When I realized how enthusiastic he was regarding his belief that it was feasible for such an animal to have possibly survived, I offered to provide my expertise to design an expedition plan and make available my technological resources from the NASA/JPL. By mutual agreement we became co-sponsors for a planned expedition to the RPC,* with a two-fold purpose: (1) to demonstrate the application of my GPS/LANDSAT concept for use in scientific exploration, and (2) more specifically, to initiate a deeper study of the physical characteristics of the Basin, and its inhabitants.

Using my work at the Lab as a base, I developed an ambitious proposal which was presented to the Dept. of Defense (DoD) and the California Institute of Technology for consideration of federal funding for the proposed project. In addition to receiving the official blessings of my technical division at JPL to pursue the idea, as with all military and NASA projects, the Lab designed a striking and colorful insigna for my exclusive use, an action that required the approval of NASA. In attendance at one of my proposal briefings at the Missile Systems Division (SAMSO) in Los Angeles, were representatives of the Army, Navy, Air Force and even the CIA. But as it turned out, while the proposal was never officially denied, no funding was offered to my idea.

After several months of proposal presentations, the one tangible result that developed was a well-critiqued and thoughtout plan of action for the execution of an expedition. Several groups had assisted my careful preparations by researching data relative to the physical environment, projected health hazards, climatical expectations, etc., of the Congo Basin. However, with the disappointment of receiving no federal sponsorship, I began to contact executives of various companies and received a high level of in-kind support in the form of needed equipment. Interestingly, several prospective sponsors stated that their support was based upon the fact that I happened to be an engineer rather than a member of the academic community. I believe engineers are perceived by business managers as "achievers," which in business terms mean real dollars. The scientists, such as astronomers, physicists and mathematicians, may possess abstract dreams of space travel, but it becomes the responsibility of the engineers to convert those visions into solid hardware that has practical application. If it was otherwise, man would be yet to walk on the moon!

I believe that it was the lack of mutual modus operandi that led to the eventual separation in the relationship between Mackal and myself — a difference in methodology and approach. To me, his approach was from a very theoretical and idealistic direction, with a lesser latitude for practicality and contingencies and, I feel, this proved to be the major factor that resulted in his failing to reach Lake Tele some months later. In spite of the fact that he and I are on record initially, as co-sponsors of an expedition, at some later date, Mackal was quoted in a national weekly periodical as stating, "Regusters was just another individual who applied to accompany me on my expedition, but I turned [him] down ... I hardly knew him..." On file with JPL, NASA, and DoD are correspondence and other papers that contradict such a quote.

TRACE-I

The Regusters African Congo Expedition (TRACE) lasted from September through December, 1981 and definitely was not a spontaneous or ill-planned junket. Without federal or university financial assistance, funding was primarily provided by my wife, Kia, and myself at a substantial sacrifice to us both. And, several thousands of dollars were contributed by engineers across the country and by the wife of the late Justin Dart, a personal friend and advisor to President Reagan. I was determined to complete the planned journey not only for the time and effort I had already expended but also because the concept had caught the imagination of many people.

The Congo Basin may correctly be viewed as a 800,000 square mile sinkhole. Its evolution from a monumental inland sea to present state is well documented, along with projections of continental drift after the fracturing of Gondwanaland, and need not be discussed here. The Basin now has all the characteristics of an isolated ecosystem, much the same as Madagascar and

*Republique Populaire de Congo

Australia, which have supported the evolution of their own unique species of animal and plant life — or sustained species that existed in prehistory. Data on the Basin came from many sources. Working closely with David Jordt, a research geologist of international repute with the Petrominex Corporation in Texas, we developed a set of profile characteristics that delineate some of the aspects of the environment surrounding the Lake Tele area. Several years of effort went into our assessments. Again, assistance was lent by a number of researchers that include: Dr. David Nevin and Joe Stacey at JPL, Dr. Dick Cooke of the Danish Royal Geological Society, and a nameless number of technicians. A special acknowledgement is due Dr. Charles Elachi, Director of the Shuttle Imaging Radar project at JPL, who arranged for my unrestricted access to the wealth of high-resolution, earth-sensing data being developed by his research group.

1. TRACE group negotiating swamp in Congo Basin area.

The natives at Boa told us we could not travel to the lake by water so we walked the last 65 kilometers to the lake in five days through forest and swamp. We found Lake Tele to be a unique earth-surface feature, with no rational explanation for its isolated presence there, just north of the Equator at 70° 10' E and 1° 20' N. Native folklore credits its existence or its occurrence to the fall of a fiery ball from the sky, which seems to hold more substance than any explanation thus far offered by science. Almost circular, it has an average diameter of about 2½ miles. Although extremely murky, due to the suspension of large amounts of particulate matter, we were amazed in searching the lake and surrounding area that no exit or entry for refreshing water flow could be found by us. And, the lake water circulates in a clockwise direction in a 40-hour cycle. A very noteworthy point is that prior to our arrival at the lake, the people in the village of Boa related a story which, at the time, we attributed to pure superstition. They believed that if one dared to go to the center of Lake Tele, he would be sucked down into its depths by a whirlpool. Possibly, sometime in past history, the velocity of the clockwise water circulation had sufficient momentum to pose a realistic danger. I personally believe so, for we could not convince one of our native companions to travel towards the center of the lake in our small pneumatic boat. On a cursory basis, we cataloged fifteen different species of fish in its waters, plus clams, crabs, shrimp and various turtles. Among the reptiles were four species of crocodile and a multitude of serpents that included mambas, cobras and pythons. There could be no honest attempt to name the profusion of varieties of birds and animals that inhabited the surrounding jungle and swamp, but there were 35 types of birds that we had seen (four types of ducks alone), and untold numbers of four-legged creatures (including panthers) on up to elephants where the swamp depth became lower. There were many families of gorillas and other primates, too. Many things roamed the night — things beyond our wildest speculation.

Through the use of satellite imaging and water-motion intelligence, Jordt and I were able to calculate the average depth of the lake at about 48 feet. Passive microwave imaging also allowed us to identify the coordinates of a deep hole near the center of the lake, which plunges to some, as yet, unmeasured depth. Our personal experience at the lake made this hole known to us when, during one attempted measurement, our line extended down at least 200 feet. The possibility of a meteorite located beneath the lake bottom can not be ruled out since the lake is considered by some Congolese officials and Europeans to be a source of magnetic disturbance. Neither our hand-held devices nor aircraft instrumentation reflected any magnetic deviation — at least at 1500 feet altitude, but low-level flights are forbidden by the government and even pilots of commercial flights avoid flying over the area.

The Monster

I discovered that reports and sightings of monster creatures inhabiting the inaccessible and uncharted intraterritories of Africa date back to the time of first intrusion by Europeans. And, naturally there are much older tales from among the native populations. John Jordan related his personal experience of shooting, with a high-caliber .303 rifle, a "creature" the likes of which he never imagined to exist. His physical description of the animal matched, almost perfectly, that Ankylosaur dinosaur species — a species which at that point had not been classified, much less identified, by scientists. In January 1910, the Seattle *Times* headlined a story "A Giant Dinosaur Still Alive?," and devoted two full pages to the then recent creature reports from Africa by hunters and military personnel.

Even if we dismiss all the reports (which scientists and scholars are prone to attribute to imagination and myth) there are documented no less than a dozen eye-witness creature reports made by Westerners since the beginning of this century. I am sure it is safe to assume many more such sightings were never logged because of the fear of personal ridicule — then as today.

The seemingly extraordinary and unbelievable nature of reportings of large creatures may be brought into a more realistic perspective through the aid of the following example: Few people are aware that scientists rejected reports of the existence of the gorilla, until as recently as 1856, when the first skull was obtained by an American missionary. And it was not until 1902 that the first live one was shown to the public. Also, to the present time, it was thought that the gorilla did not exist west of

the Congo River, based on its presumed fear of water. However, during my 1981 trek into the deep swamps in the north of the Republic of the Congo (RPC), we observed and photographed a species of large gorilla that actually inhabited the depths of the swamplands. This fact of habitation was apparently unknown by modern primatologists. I have since received requests from around the world for more details on this discovery — but I am getting ahead of my story.

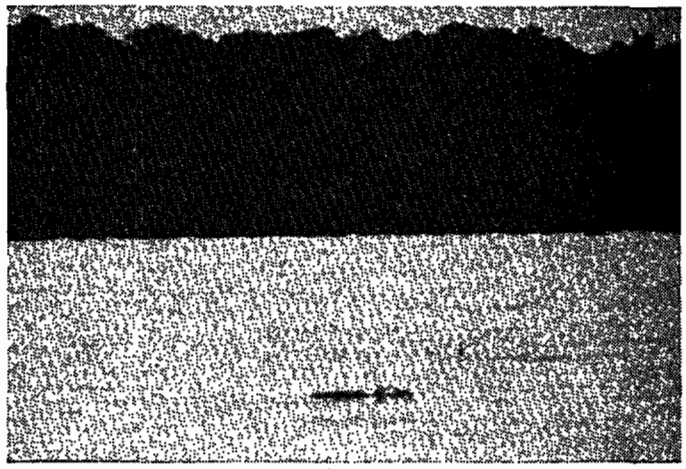
As a point of clarification, the name "mokele-mbembe" is neither proper in native tradition nor of any significance scientifically. The term is derived from Lingala, a French-missionary invented language, to facilitate communications with the Bantu tribes in a dialect to fit the European tongue. Loosely translated, it means "the animal that blocks the flow of rivers." In the dialect of the north in the RPC, among the Bomitaba people, a subtribe of the Bantu, the animal is known as "emeula natuka," or "the animal that eats the tops of trees." Indeed, a very descriptive label for something that critics claim is only a figment of native imagination.

Several weeks following our arrival in Brazzaville in 1981, I received an invitation to meet with a Colonel Emmanuel Mossedzedi, deputy commander of the Brazzaville Garrison and Chief of Air Force Operations and Logistics. The colonel proved to be the stereotype military officer, polished, handsome, and a ramrod posture. He was very quiet spoken, and fluent in French, Russian, Spanish — and of course native dialects. He was also a senior and accomplished jet pilot, who had received training in both Russia and France. I was apprehensive of his military view of Americans in this Marxist atmosphere, and suspected another roadblock to prevent our travel into the interior country. However, I was to receive a surprise. The officer had been born in the Likouala Region, and wished to share an experience of his youth. Some 20 years earlier, he was a member of a hunting safari from his native village of Itanga,

2. Sketch of an animal (monster) made by Colonel Emmanuel Mossedzedi, Deputy Commandant of the Brazzaville Garrison.

which suddenly came upon an animal (monster) that none of them had ever encountered in the forest before. However, its appearance matched that spoken of by some of the elders as emeula natuka. When I asked him to sketch his recollection of the animal, he provided the sketch shown here in Figure 2. It is to be remembered that this information was offered unsolicited, by a high-ranking, well-educated officer (colonel is the highest rank obtainable in the Congolese military), with absolutely nothing to be gained through the dispatch of such information to me, a foreign scientist who can offer the Colonel no political clout in his country, whatsoever. Although vague and unesthetic, the connotation of Colonel Mossedzedi's sketch returned as a clear deja vu some weeks later at Lake Tele.

In spite of a total of five separate observations by members of our group, during the 32-day period at Lake Tele, only one



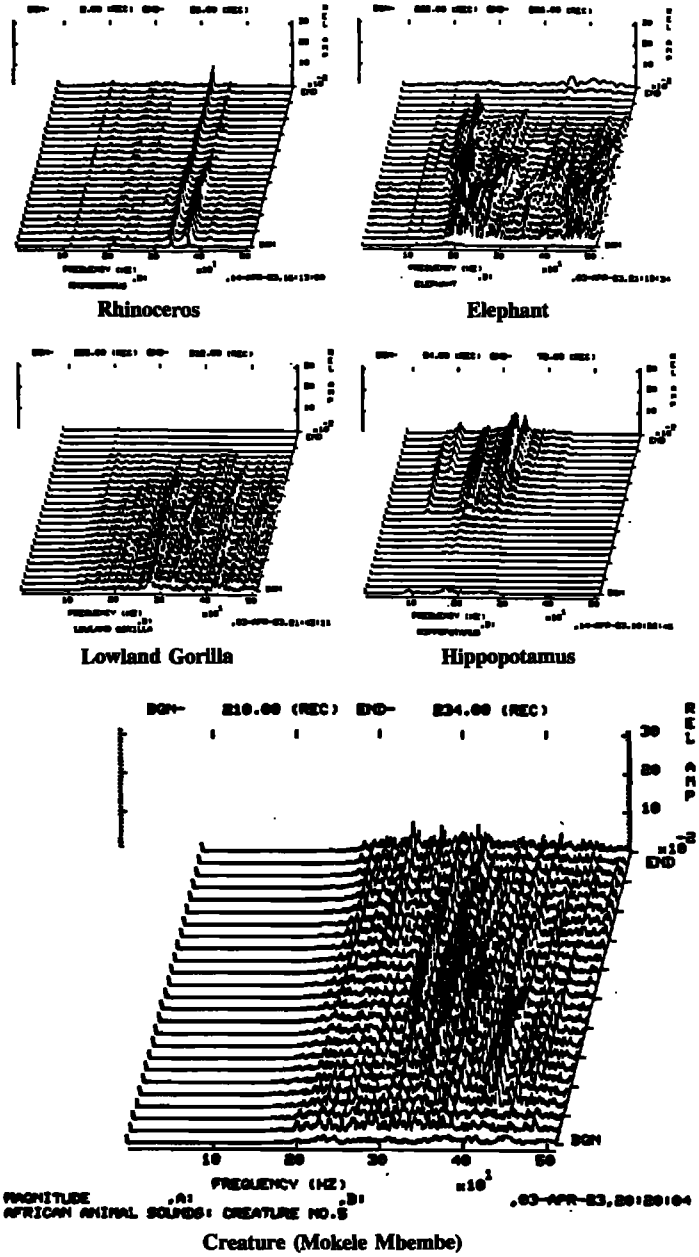
3. Head portion of Mokele Mbembe submerging into Lake Tele. Taken from estimated distance of 300-400 feet.

doubtful and fleeting image was obtained and is shown in Figure 3. The shot depicts an estimated 18-24 inch portion of a submerging head and was processed and enlarged by the Special Imaging Group at Northrop Aircraft in Los Angeles, thanks to manager Jerry Weidenborner. We make no excuses for our failure to have returned with a picture perfect enough to beautify the front pages of the weekly tabloids. The reality of the matter is that the taking of a picture requires (1) being in the right place, at the right time and looking in the right direction, and (2) being fully prepared to mechanically record the event as it occurs. Concrete evidence, such as an original photograph, of any short-lived event is much rarer than the opportunity of human observance. Seeing it and photographing it are not equal tasks. Likewise and particularly annoying is the naive statement, "if it exists then many people would have seen it by now."

A Voice 'Picture'

Even though we were unable to get clear photographs of the creature we sought, another form of graphic evidence developed successfully for us. A very thorough and undeniable scientific analysis was performed on the vocalizations in recordings made by us at the lake of the mokele-mbembe animal. The technical authorities and experts we consulted included: Kenith Templin of Borg-Warner; Dr. David Weishampel, of the University of Tübingen in West Germany, an authority on animal vocalizations; Dr. G. DeGraaff, Assistant Director of the National Parks Research Group in South Africa, where an extensive library of animal voiceprints is maintained; Dr. Rufin Oko, Director of Animal Research at the Ministry of Water and Forests in the Republic of the Congo, and an internationally recognized expert on the vocalizations of African animals; and Dr. Harvey Fischer, Curator of Reptiles at the Los Angeles Zoo.

Audio recordings made at Lake Tele were converted into two- and three-dimensional spectrograms, using computers and other instrumentation at the Borg-Warner Dynamics Research Laboratory. Attentuations by the dense jungle foliage, and high ambient noise contaminations caused by insects, birds and other creatures made the task difficult, but not impossible. An illustration of some of the plots are shown in Figure 4. With his sophisticated equipment, Templin was able to isolate the vocalization of interest to a 300-400 Hertz band. After a conversion into 3-dimensional characteristic plots, a systematic comparison was then made against other types of large animals native to Africa, using their similar voiceprint-type plots. No other animals were found that even closely resembled the spectrum characteristics of the Lake Tele animal. Amazingly, we were also able to clearly distinguish that the voiceprints indicated that



4. Mokele Mbembe voiceprint and comparative spectrograms as produced Borg-Warner Laboratory.

several *different* animals, of the same species, had inadvertently been recorded by the expedition group. The determination of this fact was established in a manner not unlike that used to discern the difference in human voiceprints.

Copies of the original tapes were sent to the researchers in Europe and Africa, who then conducted their own analyses. Subsequently, each of them corroborated our findings here in the United States. Dr. Weishampel wrote from Tübingen, "I cannot say it is a dinosaur, but you have found something new and different out there..." Dr. DeGraaff responded for his group, after making use of their extensive audio library, "I find it impossible to identify the animal." And Dr. Oko, with his extensive knowledge of the animals of Equatorial Africa wrote, "After completing my own analysis, your recording was played for an audience of professors and military officers at the University (Marien-Ngouabi in Brazzaville). We are all amazed and convinced of an animal we do not know." It must be remembered that, probably, without exception all those in attendance at the gathering in Brazzaville were born and raised in remote villages and were familiar with any sound produced by crocodiles, elephants, gorillas, large cats, hippos, and all other animals of the forest including chickens and goats. Who is one to believe, the skeptics and critics who have never so much as journeyed into the interior of Africa or those intimately acquainted with the jungle inhabitants? It was demonstrated to the members of TRACE, over again, that the "primative" natives were capable of identifying, without hesitation, any animal, insect or bird that produced a noise in the jungle. We have not forgotten Dr. Fischer at the Los Angeles Zoo who said, "I am unable to imagine what animal could have produced that cry." A detailed document on these analyses and conclusions is contained in a publication by the Unicorne Research Foundation.[2]

A rather graphic on-the-spot analysis was made by Dr. Etienne-Serge Mingolou, a biologist that accompanied our expedition, and the Director of Animal Management for the RPC. After the initial skepticism, which we all shared, he had the occasion to experience the animal's cry at a very close range, when he was concealed by a wall of jungle. Following the emanation of the cry, a great crashing was heard, he said, as it plowed through the jungle growth. When I inquired of Etienne why he had not made a point of rushing to see the animal firsthand, he replied, "I have not that much courage." And as fearless as were our accompanying native hunters, they would not venture near the jungle sites of our most frequent "sightings" or "hearings."

The Back Bone of the Story

In 1982, following completion of the first TRACE expedition, I was contacted by a member of Nigerair, a French aviation business in the country of Niger. Our pursuits and activities in the Congo were common knowledge throughout Africa by then, thanks to the Voice of America, USIA and the media in Ghana and the Republic of the Congo. Apparently, during the overflight of part of the desert in central Niger, one of the pilots chanced upon an unusual and interesting find. Below, where the sand had shifted, laid fully exposed a huge deposit of bones. Landing his light craft near the site, he walked among a collection of fully articulated skeletons of crocodiles, large turtles, other creatures, and *dinosaurs*, as later identified. Collecting a few of the bones from the largest and most unusual specimen, he continued with his mission. Later, the bones were definitely identified by French and Italian researchers as belonging to a sauropod species dinosaur — now classified as Ouranosaurus nigeriensis. Through sheer luck, they decided to send me a sample of the bone, and I received one of the vertebrae that was about six inches in diameter. Paleontologists at UCLA, UC-Berkeley, University of Arizona, US Geological Survey, LA Museum, Page Museum, and Tokyo University have subsequently corroborated it as a sauropod dinosaur bone.

The first expert I met with was Dr. Rainer Burger at UCLA, recognized internationally for his work with the radiometric dating of fossils. After a visual assessment, he commented, "This bone is of far too recent origin to make use of my laboratory. I would guess that this bone is a little over a million years. Although partially opalized, it is not fossilized." There should be little doubt that I was astonished by his comment. When I asked about his making such a statement in light of the supposition that all dinosaurs died 65 million years ago, he replied, "I am giving my opinion based on my experience with thousands of dinosaur bones. In science, what is so should not be denied to support other purposes." This confirmed my impression of Dr. Burger as being a highly enlightened, forthright person, and a *true* scientist.

5. A cross-section view of vertebra bone from an Ouranosaurus dinosaur found in the desert of Niger.

It should also be mentioned that the remains found in the desert comprised completely articulated skeletons, and did not require chipping out of compacted rock formations. Dr. George Jefferson, at the Page Museum in LA, after viewing the bone sample commented that in his estimation the condition of the specimen, based on his experience with more recent fossil bones, seemed to indicate an age of perhaps several millions of years, at any rate, far short of 65-100 million-year-ago period of extinction. The bone demonstrates complete retention of the external matrix. And the internal structure closely displays clear definition of blood vessels and the Haversion system.

David Jordt and I utilized the wealth of information compiled on the bone to go a step further. Using the currently accepted creep-rate of the southern movement of the sand of the Sahell desert area, we were able to calculate that the point of bone discovery was characterized then as being jungle and swamp (much the same as the geological makeup of the present Congo Basin) about 10,000 years ago. Apparently, a depressed area became isolated at that time and continued to shrink until it no longer sustained the collection of animal bones that had become entrapped.

Space will not permit me now to thank the many contributions by various researchers, but I must summarize some of the efforts for appropriate weight. Microprobe and thin section diagnoses were completed by Caltech, and initial electron microscope scan (SEM) and Rockwell hardness testing at JPL. Additional SEM imaging was accomplished by Dr. Marcia Miller, a researcher at the City of Hope Medical Center. A series of radiometric dating and other chemical analyses were completed by Dr. Garniss Curtis at UC-Berkeley. Dr. James Rooney of JPL was assisted by his colleagues at USC Medical Center in making ultrasound scans, using their newly developed high-resolution device. And James Bischoff of the USGS performed radiometric testing using their unique U_{234}/U_{238} testing series. In November of 1983, the Tandem Accelerator User's Committee at the University of Arizona voted to contribute the use of that very expensive and exacting instrumentation to perform a C_{14} dating. Drs. Tim Jull and Thomas Stafford directed the activities at the University of Arizona and rendered their final report in June of 1984. Although tempered by qualification to take into account the probability of surface contaminants, the bottom line conclusion extended by all the above chemical and radiometric analyses of the estimated/indicated date of the bone sample was between 10,000-70,000 years old! Analytical contributions were also made by Tokyo University, and the results published in several Japanese periodicals.

Also, the estimate made public after the 1981 expedition of the approximate length of the animal observed at Lake Tele was 35 feet. The articulated skeleton of the Ouranosaurus in Niger measured 12 meters, and generally conformed to the profile of the Lake Tele animal. Working with Mark Evans, a researcher at the University of Wisconsin, it is determined to be highly probable that a population of 250 individuals could maintain a K-selected species with ease, in an 800,000 square-mile preserve — free of intrusion by man.

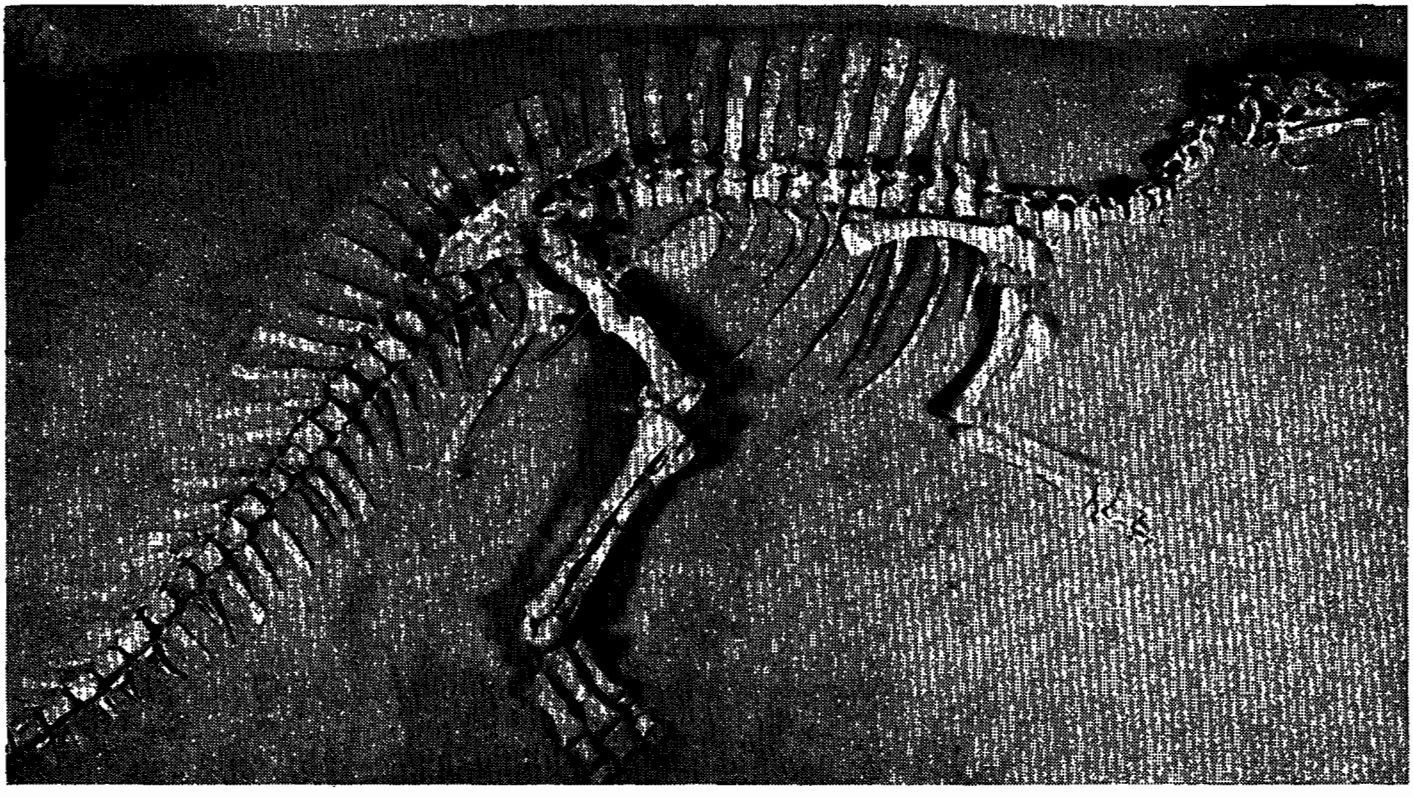
There is too much to be learned from the continued investigations of the Congo Basin,(the 'project mokele mbembe' excluded) to allow the quest to be stifled or diverted by academic differences of opinion. Due to our actual observation of a creature of some unidentifiable form, by trained observers, the existence of mokele mbembe can no longer be dismissed and attributed to native myth now than can the gorilla. The main components required for such research are the curiosity, stamina and just plain "guts."

A key to the shallowness of outside attitudes about such matters may be best expressed by an old chief in the little village of Boa [Boha] by the name of Bangena. Faced with our determination to venture into the hazards of the jungle he asked, "...Why don't you take our word that the animal mokele mbembe exists so that you may better remain here and enjoy the comfort of our village? After all ... you wish for us to believe that your people have walked on the moon."

Also damaging are those "scientists" who take the dogmatic position and unscientific approach of pompously proclaiming the nonexistence of a thing in a place about which they know nothing. It would be appropriate and scientific in approach to at least allow for the possible existence of a creature until proven otherwise. To me, as a devout product of the more tangible world of engineering, whenever the word *cannot* is invoked as an irrevocable operand, the flag of challenge is automatically raised rather than resign myself to man-created edicts of *impossible*.

With regards to our discovery of swamp-dwelling gorillas, one of the world's foremost primatologists, without the benefit of discussion or review of the data, piously declared, "Regusters is mistaken. No gorillas occupy or inhabit a water environment." His comments were passed to me indirectly, initially, through a colleague at Stanford. After my friend at Stanford showed the primatologist the compiled data and photographs, he called and politely asked if I would consider taking his group into the area to assist them in making a survey.

More precisely, our short trek of a 50-mile penetration into the most resistive and hostile jungle on earth exposed a number of significant exceptions to accepted thought in the biological sciences. Included were, (1) a large gorilla population inhabitating a totally inundated area, (2) gorilla family groups consisting of small monogamous assemblages, (3) the observing of the deliberate capture of birds by primates for feeding, (4) the cohabitation of a number of crocodile species within a small defined area, (5) the identification of an animal (Jentink's Duiker) thought to exist in only one area of Africa thousands of miles distant, and (6) the observance of a giant turtle and a sauropod-appearing animal, both of species thought to be long extinct. Several geological anomalies were also registered. The reasonable and logical inquiry becomes, "If exceptions in such numbers were observed by a small group, in a small area, over so brief a period (six weeks), how many more exceptions to rules exist if projected to the total 800,000 square mile area of the Basin?" It is a query whose answer is beyond the scope of current scientific knowledge — and beyond the extrapolated,



6. Articulated skeleton of an Ouranosauras nigeriensis as found.

presumed authority on the part of any individual.

Another area occupying a great deal of post-expedition analyses time was the defining of the geophysical environment, with its related anomalies. The characteristics of the environment we discovered ourselves subjected to were totally unlike any we had anticipated or prepared to find. It bore no semblance to any of the exaggerations of Hollywood, or provided for by the personal experiences of others. It would appear that no other region of the world harbors a forest of such intense extremes. The reason for its being void of human life and its resistance to incursion and exploration became readily apparent. It is a place where insects have undoubtedly attained their greatest level of extravagance. Misled by the romanticisms of Hollywood, many scientists and the public at large are totally ignorant of the price to be paid in making such a trek. Prior to our expedition, I saw pictures of a group from the LA Museum of Natural History that had traveled to the Congo for the explicit purpose of observing gorillas. They were advised by the animal management people there that it would be necessary to venture deep into the northern forest to accomplish their mission. Ignoring this advice they chose to scout the low-lying marshes along the fringe of the dense forest, and were pictured sloshing through the elephant grass lugging their *suitcases*. Naturally they never saw one single gorilla, but returned authoritatively reporting that gorillas were near complete extinction in the country — a declaration that was totally incorrect according to our own findings.

We learned of another high-scale deception that, we were told, was concocted at the site of Mission Evangelique in 1981. A freelance anthropology researcher by the name of Kevin Duffy returned with several minutes of footage of a sighting which he inferred was mokele mbembe swimming in the Ubangi River, just opposite the mission site. The film was, subsequently, sold to the TV show "That's Incredible" and aired nationally in the U.S. in the same light, at a purchase cost to the studio of $10,000. During a return visit by me to the RPC in July 1984, I attended a dinner at the residence of the French Ambassador where Eugene Thomas was also present. To all present, he admitted the filming hoax perpetuated by Duffy, using a poorly photographed, carved log, operated by use of attached wires. However, although present, [when filming] he disclaimed knowledge of the intended application of the production. The adverse impact of this upon our own efforts and other purposeful groups, such as SITU, is readily apparent.

With the encouragement and assistance of Dr. Ned Munger, head of the department of Geopolitical Sciences at Caltech, I authored a comprehensive monograph of the TRACE expedition. Published by the Caltech Munger Africana Library, it has been distributed to over 250 academic groups throughout the world. Since that time, a number of studies and analyses have been conducted on the vast amount of data collected during the TRACE expedition. In the course of these activities, assistance has, again, been rendered directly by previously named researchers.

Our ground level activities at Lake Tele and in the surrounding swamp provided a very signficant contribution to earth-sensing image interpretation science. On the basis of data collected, we were able to provide ground calibrations for the SEASAT and LANDSAT libraries, and assist the scientists at JPL with the validation of their work. A recent NASA publication,[3] co-authored by me, discusses the techniques mentioned here and the actual application of the TRACE data to microwave hydrology science. Another publication by Jordt and me discusses in detail our assessment and analysis of the Lake Tele region,[4] and those factors that support and make possible the survival of mokele mbembe.

Most of the articles about the expedition were so slanted and without objectivity that they do not warrant the dignity of a response. But one misconception does, I feel, require clarification. At the Los Angeles Museum of Science and Industry I was

asked by one reporter, "Dr. Mackel says Lake Tele is only about nine-feet deep. How do you account for a large animal submerging in such a shallow lake?" Apparently, the reporter never asked Mackel how he knew the lake to be that shallow. My information is that Dr. Mackel never reached the lake but only intimated that he had. Some such similar statements, I am told, angered officials of the Congolese government. From this, critical articles appeared in several journals opposing the TRACE-I survey activities at Lake Tele, each with the same concept that Lake Tele is a little over nine-feet deep, *maximum*. Using simple logic and an elementary knowledge about the rapid growth of jungle vegetation, one might deduce a land-locked body of shallow water, even two and one-half miles wide, would have been overgrown long, long ago.

At the urgings of Dr. Oko and the military commander of the Likouala Region, Colonel Mouassiposso, I returned to the RPC in July 1984 to initiate the planning for a second expedition to Lake Tele. Although groups from Belgium, France and Japan have attempted to duplicate our efforts since 1981, they all met with failure. My concept for a joint American-Congolese expedition (TRACE-II) was readily agreeable to the Congolese officials, and a general agreement was signed in August, 1985. A copy is on file with the US Embassy in Brazzaville. The scope of concessions extended to us far exceeds those enjoyed by any scientific research effort by any foreign group in this Marxist country.

Information is continuing to be compiled from the data derived by the 1981 expedition. I am personally convinced that the results of the TRACE-II expedition will hasten the shattering of some of the existing dogma. Our critics will be rendered an answer in the form of concrete achievement and accomplishment. The critic lives an easy life. For him there is no need for demonstration, or proof of his disbelief. But encouragement comes in good form from those who recognize understanding as an integral segment of scientific pursuit. In a reply to my question, Dr. Richard Moody a world renowned paleontologist at Kingston Polytechnic in England, wrote, "It is I who should be asking questions of you." In his authoritative book *Prehistoric World* he states, "The Atlantosaurus species dinosaur continued to thrive for more than 15 million years after the general extinction, with no plausible explanation from science."

In support of my upcoming expedition, TRACE-II, more than 70 foreign and domestic companies have thus far contributed over $150,000 in equipment and supplies, including the use of a helicopter, complete with pilot and fuel. The Kodak Company will be providing all our film and video requirements and the Wrangler Corporation will outfit us with clothing. Southern Marine Research has donated underwater mapping instrumentation and a Swiss manufacturer water purification equipment. The Japanese companies of Tanaka and Uniden have provided lightweight power plants and UHF communication equipment, respectively. We interpret these to be votes of confidence for our next challenge.

TRACE-II presently needs necessary financial support estimated now at $50,000. Our efforts to raise the sum are continuing and any interested persons may send support by contacting SITU or the Unicorne Research Foundation at 2900 Scenic Bend, Modesto CA 95355.

Any request for the collection of a specific sample(s) for interested investigators should be directed to Mark Evans at the University of Wisconsin (608-263-6277). Research groups in over 14 universities and USDA and NASA/JPL have already submitted such requests and we anticipate collecting over 100,000 biological and geological samples to support ongoing activities as diverse as cancer and AIDS research to space technology research.

I close — not because the events of our short trek are exhausted — leaving you with this thought: Our 150 years of learning about the dinosaur is far too brief a period of study of a breed of animals whose reign spanned some 150 million years to allow any so-called expert to remain unchallenged. There is much yet to be understood.

Herman A. Regusters is an aerospace engineer who studied physics at La Salle College and business law at Temple University. One of Mr. Reguster's grandfathers, a Civil War veteran, was born into slavery in 1824. Herman's father served as a missionary and teacher in West Africa in the 1920s. Dr. Kia and Herman were married in a Ghanian ceremony during a pre-TRACE trip to Africa. Because Kia is a graduate psychologist with various medical experience, she served as the 1981 expedition's medical director. We are told she is the first western woman to have experienced the hazards of the vast unexplored Congo Basin.

REFERENCES

1. *MOKELE-MBEMBE, An Investigation into Rumors Concerning a Strange Animal in the Republic of the Congo, 1981*, Regusters, H.A., Munger Africana Library Notes, Vol. XII, California Institute of Technology, July 1982.
2. *A Comparative Analysis of Vocalizations of an Unidentified Congo Basin Creature*, Regusters, H.A. and Templin, K.W., Unicorne Research Foundation, 1983.
3. *Microwave Hydrology*, Regusters, H.A., Stacey, et al, NASA, Jet Propulsion Laboratory, Publ. 85-21, April 1985.
4. *A Brief Geological Analysis of an Extraordinary Congo Basin Lake; Lac Tele*, Jordt, D.K. and Regusters, H.A., Unicorne Research Foundation, 1983.
5. *Casual Primate Observation in the Congo*, Regusters, H.A., AnthroQuest Magazine, The Leakey Foundation, 1983.
6. *Expedition*, Weatherford, S., WORKS Magazine, April 1985.
7. *Danger-fraught Jungle Treck Yields Scientific Riches*, Universe News, Jet Propulsion Laboratory, Vol. 17, 1982.
8. *Navstar's Other Uses*, High Technology Magazine, May 1983.
9. *Are Dinosaurs Alive?*, Moscow News, Moscow, Russia, June 1983.
10. *Is it or isn't it? Maybe the scientists know for sure*, (news by-line) Loewe, J., Star-News, Pasadena CA, June 20, 1984.
11. *I Dinosauri Del Tenere*, Ligabue G., Pinna G., Azzaroli, Taquet Ph., Longanesi, Milano, Italy.
12. *Nature* Magazine, 104:396-397, Dec. 18, 1919.
13. *Geographie Du Congo-Brazzaville*, Vennetier, Pierre, Gantheir-Villars, Paris, 1966.
14. *Prehistoric World*, Moody, Richard, Chartwell Books, NJ, 1980.
15. *Age of the Atlantosaurus Beds*, Lee, Willis Thomas, Journal of Geology, Vol. 11, 1903.
16. *Expedition to the Congo*, Tucky, Capt. J.K., John Murray, London, 1818.
17. *Carte De L'Afrique Centrale-Impfondo*, Institut Geographique National, Paris.
18. *Gorillas and Chimpanzies*, Garner, R.L. Osgood, McIlvanine & Company, London, 1896.
19. *Elephants & Ivory*, Jordan, John, 1956, pgs. 56-57.
20. *The Man-Eating Myth*, Arens, W., Oxford University Press, 1979.
21. *Satellites Bring New Precision to Navigation*, Logsdon, T., High Technology Magazine, July 1982.
22. *Journal of the Gorilla Foundation*, Spring 1983, Woodside CA.
23. LANDSAT, Topographical Imaging, NASA/JPL, 1973.
24. *Acoustical Analyses of Potential Vocalization in Lambeosaurine Dinosaurs*, Weishampel, D.B., University of Penna., 1981.